Los Alamos National Laboratory Laboratory Implementation Guidance LIG 300-00-00.0

Issue Date: July 11, 2001 Nonmandatory Document

1.0 INTRODUCTION

The management of work at Los Alamos National Laboratory (LANL) is an important element in the assurance of operations that are reliable, safe, secure, and efficient. There are two primary methodologies for this element: Safe Work Practices (primarily intended for the experimental, research and development-related activities); and Facility Work Control (primarily intended for maintenance and repair activities needed to provide the infrastructure and environment in which experimental or R&D work will take place). There are, however, sufficient variations in the work of the Laboratory, the nature of work providers, and the operational controls needed that all work does not neatly fit into one of these two methodologies.

This Laboratory implementation guidance (LIG) complements the requirements of various LIRs (see Sec. 6.1) and contains a matrix to assist Laboratory users and their work providers in understanding the institutional controls for different sets of characteristics of work and work providers. **Note**: Within a specific project or facility management unit, there may be additional controls or requirements needed.

2.0 PURPOSE

The purpose of this LIG is to provide guidance for Laboratory work requestors and work providers in the understanding and selection of the methodology for the control of work within any technical area (TA) of the Laboratory.

3.0 SCOPE

The LIR requirements (see Sec. 6.1) referred to in this LIG apply to all persons performing any kind of LANL-authorized or -managed work within any TA at LANL.

Note: This LIG does not apply to those performing work at LANL TAs by means of a direct contractual relationship with the Department of Energy, including the TA-33 telescope, the TA-3-38 snack bar, and the Forest Service activities at TA-49. This work will be managed under requirements established by the Department of Energy.

4.0 DEFINITIONS

The following definitions apply to the contents of this LIG:

construction—Any combination of engineering, procurement, erection, installation, assembly, or fabrication to create a new facility, alter a facility, add to or rehabilitate an existing facility; alter and repair buildings, structures, or other real property (see LIR 402-10-03).

facility management unit (FMU)—A specifically delineated portion of the Laboratory under the "ownership" of a Division Director (see LIR 280-02-01).

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facility manager (FM)—A manager appointed by an "owning" division director to direct activities which will sustain the ability of assigned buildings and structures within an FMU to support the operations and activities of the occupants.

greenfield construction—Construction in which the contractor has exclusive custody of the entire work site, and the contractor's personnel and lower-tier subcontractors are the only personnel affected by the work environment and requirements (see LIR 402-810-01).

hands-on—Involving or allowing use of or touching with the hands.

service contractors—People who contract with the Laboratory to provide a limited service; does not include sub-contract personnel ("body-shop" employees).

visitor—Person(s) not having an employment or contractual relationship with the Laboratory or one of its sub-contractors. (**Note**: This definition has been broadened from those found in other LANL documents.)

work providers—Anyone who performs work at the Laboratory, including LANL employees, contractors, and subcontractors. (**Note**: This definition has been broadened from those found in other LANL documents.)

5.0 GUIDANCE

5.1 Referencing Attachment 1

The following table should be used to reference the information in Attachment 1.

Step	Action
1	Refer to the matrix in Att. 1 to determine the set of requirements for any
	given type of work and/or work provider.
2	 Follow the titles of each column and description of work to determine
	the closest category for the work to be performed,
	 then read the requirements in that column.
	Notes : (1) For work managed using the facility work control system,
	direct questions to the FMU responsible for the location of the work.
	(2) For work to be managed using the safe work practices process, direct
	questions to the Laboratory managers overseeing that project.
3	Use Form 1664 (non-facility work) or Form 1692 (facility work) to
	communicate site-specific hazards and controls to non-Laboratory
	workers or service providers. For internal Laboratory communications
	associated with Safe Work Practices, information about a location with no
	site-specific hazards/controls may be communicated verbally. If there are
	site-specific hazards/controls, that information should be communicated in
	writing using one of the Forms identified above.

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Work providers accessing buildings or facilities should notice and follow any postings which may advise of immediate or imminent conditions which may affect their access or work.

There is a requirement that any work in a facility after normal working hours (including programmatic service contractors) must be cleared/coordinated with the FMU (Ref. LIR 250-02-02). This may be accomplished through a general statement in the Facility-Tenant agreement authorizing any work at any time or it may need to be more specifically coordinated to assure the availability of escorts. The purpose of this requirement is to assure that communication has taken place regarding who will be responsible for after-hours work.

5.2 Institutionally Required Training for External Service Contractors Currently, there are institutional requirements for LANL training courses that service contractors must attend if their work meets any of the following criteria.

Note: For service contractors to get LANL credit for LANL training courses, they should have a Z-number issued by the badge office.

LANL GET Training. For work providers who will be on site for more than 10 working days (full or partial) within one twelve-month period, the General Employee Training (GET) course (or a test out) will be necessary. GET can be completed through classroom training or by testing out. The anticipated time on site is important so that the GET training is completed before work begins. The 10-day criteria applies regardless of where or when the work provider is working; that is, 3 days on one project this month plus 8 days on another project next month meets the criteria.

LANL Lockout/Tagout (LO/TO) Training. This training is required for any worker who must work on a de-energized system. Even if the system is locked out by another worker (such as a LANL researcher or facility representative), every person working on that system must place their own personal lock and tag on the system and must complete the LANL training to correctly utilize the LANL process. (Ref. LIR 402-860-01)

Notes:

- **(1)** For greenfield construction, contractors have the option of using their own LO/TO, including training, if(1) their programs are approved by ESH-5, and(2) their employees are trained to these programs.
- **(2)** For narrowly scoped work, with only one source of energy, on a non-repetitive basis, ESH-5 may consent to provide a site- and equipment-specific briefing in lieu of the LANL training course for credit. There is no LANL credit given for site-specific LO/TO briefings.

LANL Confined Space Training. This is required for each work provider who must enter a confined space, whether permit-required or non-permit-required. (Ref. LIR 402-810-01)

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Note: For greenfield construction, contractors have the option of using their own Confined Space programs, including training, if(1) their programs are approved by ESH-5, and(2) their employees are trained to these programs.

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LANL Radiation Worker Training. This is required for entry into the various levels of radiological areas, unless escorts are provided. A summary of the requirements and various options is available in Appendix 8A, LIR 402-700-01, "Occupational Radiation Protection Requirements." Some training received at other Department of Energy or Nuclear Regulatory Commission locations may not need to be repeated for work at Los Alamos. Review and approval of training received elsewhere must be obtained from ESH-13.

Waste Generator Overview. If a service contractor needs to accept responsibility on a project for generating hazardous waste associated with that project, attendance at Waste Generator Overview training is required (see LIR 404-00-02). An alternative is for the project point-of-contact or a facility representative to accept designation as generator and manage the waste through an organization or facility Waste Management Coordinator.

Crane and/or Forklift Operator Training. If a service contractor plans to operate a Laboratory crane, hoist, forklift, or other powered industrial truck, a Laboratory license and attendance at Laboratory training is required (AR 13-2 and LIR 402-1110-01). An alternate option is to use licensed JCNNM or Laboratory operators for the lifts.

Other courses. If a service contractor wishes to attend a LANL training course to fulfill a training need, arrangements may be made through their purchasing specialist. Courses offered and their schedules may be located through the <u>ESH-13 course catalogue</u>. Questions may be directed to the ESH-13 group office.

6.0 REFERENCES

6.1 Documents

The following set of documents is the source of requirements alluded to in this LIG.

LIR 230-03-01, "Facility Management Work Control"

LIR 250-02-02, "Facility-Tenant Agreements"

LIR 300-00-01, "Safe Work Practices"

LIR 300-00-02, "Documentation of Safe Work Practices"

LIR 402-10-01, "Hazard Analysis and Control for Facility Work"

LIR 402-10-03, "ES&H Management of Contractor Performed Facility

Construction/Maintenance, Environmental Restoration/Decontamination and

Decommission, and Related Drilling Operations"

See other LIRs for discussions on specific hazards and controls. (Operations/Requirements home page.)

6.2 Additional References

AR 13-2, "Cranes, Hoists, Lifting Devices, and Rigging"

LIR 402-700-01, "Occupational Radiation Protection Requirements"

LIR 402-810-01, "Confined Spaces"

LIR 402-860-01, "Lockout/Tagout for Personal Safety"

LIR 402-1110-01, "Forklifts and Powered Industrial Trucks"

LIR 404-00-02, "General Waste Management Requirements"

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6.3 Document Ownership

The Integrated Safety Management Program Office shall be the owner of this LIG.

7.0 ATTACHMENTS

Attachment 1: Integration of LANL Institutional Work Requirements for Work

Providers

Sec. A: Visitors

Sec. B: Programmatic Work, Including Work Impacting Facilities

Sec. C: Facility Work

Sec. D: Construction D&D

Attachment 2: LANL-Specific ES&H Requirements Guide for Service Contractors

Attachment 1: Integration of LANL Institutional-Work Requirements for Work Providers

Use the following Matrix sections to determine the set of requirements for any given type of work and/or work provider. Follow the titles of each column and description of work (Rows I & II) to determine the closest category for the work to be performed, then read the requirements (Rows III thru IX) in that column.

Section A: Visitors

I. Description/Characteristics of Work and Work Providers (WPs) May be at the Lab to attend meetings, provide training, work in an office setting, take tours, view equipment or processes in operation, scope work. II. Examples of Work or Work Provider (not all inclusive) III. What work authorization and approval requirement(s) apply? Non-Laboratory employees May be at the Lab to use R&D scientific facilities Will perform hands-on work Visiting scientists LIR 300-00-01, "Safe Work Practices," authorizing the "hands-on" work
(WPs) meetings, provide training, work in an office setting, take tours, view equipment or processes in operation, scope work. II. Examples of Work or Work Provider (not all inclusive) III. What work authorization and approval requirement(s) meetings, provide training, work in an office setting, take tours, view equipment or processes in operation, scope work. Visiting scientists Visiting scientists LIR 300-00-01, "Safe Work Practices," authorizing the
work in an office setting, take tours, view equipment or processes in operation, scope work. II. Examples of Work or Work Provider (not all inclusive) Consultants, advisors, government visitors, trainers, inspectors Will perform hands-on work Visiting scientists Visiting scientists LIR 300-00-01, "Safe Work Practices," authorizing the
tours, view equipment or processes in operation, scope work. II. Examples of Work or Work Provider (not all inclusive) III. What work authorization and approval requirement(s) tours, view equipment or processes in operation, scope work. Visiting scientists Visiting scientists LIR 300-00-01, "Safe Work Practices," authorizing the
processes in operation, scope work. II. Examples of Work or Work Provider (not all inclusive) Consultants, advisors, government visitors, trainers, inspectors Visiting scientists LIR 300-00-01, "Safe Work and approval requirement(s) Practices," authorizing the
work. II. Examples of Work or Work Provider (not all inclusive) Consultants, advisors, government visitors, trainers, inspectors Visiting scientists Visiting scientists LIR 300-00-01, "Safe Work Practices," authorizing the
II. Examples of Work or Work Consultants, advisors, government visitors, trainers, inspectors Visiting scientists III. What work authorization and approval requirement(s) None LIR 300-00-01, "Safe Work Practices," authorizing the
Provider (not all inclusive) government visitors, trainers, inspectors III. What work authorization and approval requirement(s) Rone LIR 300-00-01, "Safe Work Practices," authorizing the
inspectors III. What work authorization and approval requirement(s) None LIR 300-00-01, "Safe Work Practices," authorizing the
III. What work authorization and approval requirement(s) None LIR 300-00-01, "Safe Work Practices," authorizing the
and approval requirement(s) Practices," authorizing the
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IV. What site-specific hazard Visitors must be escorted or LIR 300-00-02.
analysis and control must be provided with site- "Documentation of Safe Work
requirements apply? specific training to enable their Practices"
movement within a location.
(See Sec. 6.1, <u>LIR 250-02-02</u> ,
<u>"Facility-Tenant Agreements"</u>)
V. Will FMU access controls No. Visitors must be escorted No. Visitors must be escorted
apply? or will be provided with site-
specific training to enable their specific training to enable their
movement within a site. (See movement within a site. (See
Sec. 6.1, <u>LIR 250-02-02</u> , Sec. 6.1, <u>LIR 250-02-02</u> ,
<u>"Facility-Tenant Agreements")</u> <u>"Facility-Tenant Agreements")</u>
VI. Is written information No. Information must be Yes. Both task and site-
about site-specific hazards and provided as needed by specific hazards must be
controls needed? knowledgeable escorts or site-
specific training. (See Sec. 6.1, (See Sec. 6.1, LIR 250-02-02, "Facility Tapent Agreements")
LIR 250-02-02, "Facility-Tenant "Facility-Tenant Agreements")
VII. Is an ES&H plan required No No
for review?
VIII. Is an activity hazard No No
analysis (AHA) form required
for review?
IX. Must the work be on the No No
FMU schedule?

Section B: Programmatic Work, Including Work Impacting Facilities

Work Management Elements	Programmatic/R&D/Support Providers	Delivery Service Providers	Non-JCNNM Equipment/ Instrument Repair, Service, and Maintenance Providers (Non- facility Work)
I. Description/ Characteristics	 Lab employees, contract employees, contractor employees stationed in a TA, performing work (may be non-facility or facility-related) in space in which they commonly reside and which is under the control of their day-to-day supervisor (host or home) [includes "deployed" personnel]. Also includes work in space belonging to others that (space) is not under the control of their day-to-day supervisor (host or home) Tasks and/or activities are typically repetitive with task hazards and controls well characterized and known. 	LANL employees or contract employees, or service providers performing delivery work in space in which they commonly do NOT reside and which (space) is not under the day-to-day control of their supervisors (host or home). Work to be performed is delivery, and does not include hands-on installation (other than plug/cord), repair or maintenance of equipment. Specific work locations and routes are previously approved by FM. Note: For occasional incursions, the FM, or other host, may choose to escort.	Work providers not residing in Lab space, and providing occasional maintenance or other services not related to or impacting the facility, often for work on laboratory instrumentation or equipment (Use Form 2011 in OST 300-00-01A to evaluate "facility impact".)
II. Examples (not all inclusive)	PTLA; most research activities; CCN-4 (maintenance, LABNET team); JCNNM fabrication or core support for facilities; ESH, FWO, S (such as, evaluation/assessment of equipment or systems, ES&H survey of area, sampling,); gas plant deliveries, including hook-ups or container filling; CCN-2; CCN-5; and QWEST (telephone add, move, or change)	Mail delivery, package delivery, most gas plant deliveries, bottled water delivery, vending machine and product delivery, chair or other free-standing furniture delivery.	Service BOAs, Xerox, Northland Computer, Exide, Liebert, Lujan Software
III. Work Authorization /Approval	LIR 300-00-01, Safe Work Practices	LIR 300-00-01, Safe Work Practices; workers must not stray from the specific route(s) and location(s) approved by the FM. (See Sec. 6.1, LIR 250-02-02, "Facility-Tenant Agreements")	OST 300-00-01A. Service contractors must complete Form 1666 certification and follow requirements outlined on Form 1664 (revised). (See Sec. 6.1, LIR 300-00-01, "Safe Work Practices")
IV. Site- Specific Hazard Requirements	LIR 300-00-02, Documentation of Safe Work Practices	LIR 300-00-02, SWP Documentation	LIR 300-00-02, SWP Documentation. Work providers must sign Form 1666. (See Sec. 6.1, LIR 300-00-01, "Safe Work Practices")

Section B: (continued)

Work Management Elements	Programmatic/R&D/Support Providers	Delivery Service Providers	Non-JCNNM Equipment/ Instrument Repair, Service, and Maintenance Providers (Non-facility Work)
V. FMU Access Controls	 No, for work in space specifically covered by HCP(s). (See Sec. 6.1, LIR 300-00-01, "Safe Work Practices") Yes, for work in space not controlled by workers' supervisors; workers must contact the FMU in which their work will take place and determine the log-in/out and/or check-in/out requirements, and site hazards and site-specific controls (verbally or in writing, at the discretion of the FM designee) for the locale in which they will be working. (See Sec. 6.1, LIR 250-02-02, "Facility-Tenant Agreements" & LIR 300-00-01, "Safe Work Practices") 	No. Locations to be accessed must be specifically approved by the FM prior to work. (See Sec. 6.1, LIR 250-02-02, "Facility-Tenant Agreements")	No, unless there are facility-specific requirements as identified in the F/T Agreement. The requestor must assure that this information is included in the requesting package. (See Sec. 6.1, LIR 250-02-02, "Facility-Tenant Agreements")
VI. Site- Specific Hazards Information Needed	Yes. Both task and site-specific hazards must be managed under HCPs (or equivalent for JCNNM and PTLA). For work in others' space, HCPs covering this fieldwork must include instruction regarding compliance with access controls, and site-specific hazards and controls. (See above) (See Sec. 6.1, ref. LIR 300-00-01, "Safe Work Practices" & LIR 300-00-02, "Documentation of Safe Work Practices")	No. Locations to be accessed must be specifically approved by FM prior to delivery. (See Sec. 6.1, LIR 250-02-02, "Facility-Tenant Agreements")	Yes. Information transmitted by use of Form 1664 (revised). (See Sec. 6.1, LIR 300-00-01, "Safe Work Practices")
VII. ES&H Plan	No	No	No
VIII. AHA	No	No. Workers must not perform hands-on work on equipment or stray from approved locations or routes. (See Sec. 6.1, LIR 300-00-01, "Safe Work Practices")	No
IX. FMU Schedule	No. However, at time of check-in to others' space, WPs may be turned away if there is a conflict with the facility's or residents' scheduled work. Option is to schedule work through FMU to assure that access will not be denied.	No	No. An option, to assure access will not be denied due to a conflict with scheduled facility work, is to schedule work through FMU.

Section C: Facility-Related Work

Work Management Elements	On-site Support Services Subcontractor Providing Facility- Related Maintenance or Services (Not Construction)	Non-JCNNM Maintenance or Service Providers (Facility-related Work)
I. Description/ Characteristics	JCNNM (and partners) employees who are members of FMU/Zone resident or core craft crews performing facility-related work.	Work providers other than JCNNM (and partners) providing facility-related work. Some facility-impact work (LIR 300-00-01. Att. A) may be managed using the work control process, as directed by the FMU.
II. Examples (not all inclusive)	JCNNM, Benchmark, Kleen Tech	Service BOAs, Liebert, Fire-Safety Services, Contract Associates, Lujan Software, CCN-4 (Audio Team)
III. Work Authorization/ Approval	LIR 230-03-01, Work Control	LIR 230-03-01, Work Control
IV. Site-Specific Hazard Requirements	LIR 402-10-01, Hazard Analysis	LIR 402-10-01, Hazard Analysis
V. FMU Access Controls	Yes. (See Sec. 6.1, LIR 230-03-01, "Facility Management Work Control" and LIR 250-02-02, "Facility-Tenant Agreements")	Yes. (See Sec. 6.1, <u>LIR 230-03-01</u> , "Facility <u>Management Work Control"</u> and <u>LIR 250-02-02</u> , "Facility-Tenant Agreements")
VI. Site-Specific Hazards Information Needed	Yes. Information must be provided in work package using Form 1692. (See Sec. 6.1, <u>LIR 402-10-01</u> , " <u>Hazard Analysis and Control for Facility Work</u> ")	Yes. Information must be provided in work package using Form 1692. (See Sec. 6.1, <u>LIR 402-10-01</u> , "Hazard Analysis and Control for Facility Work")
VII. ES&H Plan	See Note 1* (See Sec. 6.1, LIR 402-10-03, "ES&H Management of Contractor Performed Facility Construction/ Maintenance, Environmental Restoration/ Decontamination and Decommission, and Related Drilling Operations")	Maybe—see list in LIR 402-10-03. (See Sec. 6.1, LIR 402-10-03, "ES&H Management of Contractor Performed Facility Construction/ Maintenance, Environmental Restoration/ Decontamination and Decommission, and Related Drilling Operations")
VIII. AHA	Yes, unless performed as skill-of- craft with no site hazards. (See Sec. 6.1, LIR 402-10-01, "Hazard Analysis and Control for Facility Work")	Yes, unless performed as skill-of-craft with no site hazards. (See Sec. 6.1, ref. <u>LIR 402-10-01</u> , "Hazard Analysis and Control for Facility Work")
XI. FMU Schedule	Yes. (See Sec. 6.1, LIR 230-03-01, "Facility Management Work Control" and LIR 250-02-02, "Facility-Tenant Agreements")	Yes. (See Sec. 6.1, LIR 230-03-01, "Facility Management Work Control" and LIR 250-02-02, "Facility-Tenant Agreements")

^{*}Note 1: In accordance with the UC/DOE contract, the Laboratory has exercised its prerogative to require JCNNM to provide an ES&H Management Plan that covers all of their work at the Laboratory.

Section D: Construction D&D and ER

Work Management	Construction Contractors -	Facility-Related Construction Contractors -	D&D or EM/ER Providers
Elements	Greenfield	Within Facilities	
I. Description/ Characteristics	Construction projects in which the	Construction projects within a location which is	D&D and EM/ER projects
Characteristics	location is completely under the	under the control of a FM, with the project under	
	responsibility and control of the	the control of either an FM or PM Division	
	construction contractor for the	representative	
TT D 1 / 4 11	duration of the project	E. I. I. IONNA OWECE	Don Cillian CM 00
II. Examples (not all	SCC, NISC	Fire protection upgrades, JCNNM, QWEST,	D&D of old gas station, SM-36;
inclusive)	LID coo ct of G	construction BOAs	remediation of drain within SM-30
III. Work	LIR 220-01-01, Construction Project	LIR 230-03-01, Work Control	LIR 402-10-03, ES&H
Authorization/Approval	Management/LIR 230-03-01, Work		Management of Contractor
TT Ch. C. 10	Control	1 ID 400 40 04 II	Performed Facility
IV. Site-Specific	LIR 402-10-03, ES&H Management	LIR 402-10-01, Hazard Analysis	LIR 402-10-03, ES&H
Hazard Requirements	of Contractor Performed Facility		Management of Contractor
	/LIR 402-10-01, Hazard Analysis		Performed Facility
V. FMU Access	No. Access must be controlled by	Yes. These work providers must contact the FMU	As negotiated and documented in
Controls	construction contractor. (See Sec. 6.1,	in which their work will take place and determine	Facility/Tenant agreement, memo
	LIR 402-10-03, "ES&H Management of Contractor Performed Facility Construction/	the log-in/out and/or check-in/out requirements for	of understanding, work request, or
	Maintenance, Environmental Restoration/	the locale in which they will be working. (See Sec.	other form. (See Sec. 6.1, <u>LIR 402-10-</u>
	Decontamination and Decommission, and	6.1, LIR 230-03-01, "Facility Management Work	03, "ES&H Management of Contractor Performed Facility Construction/
	Related Drilling Operations")	Control" & LIR 250-02-02, "Facility-Tenant	Maintenance, Environmental Restoration/
		Agreements")	Decontamination and Decommission, and
			Related Drilling Operations")
VI. Site-Specific	Yes. In work package. (See Sec. 6.1,	Yes. In work package. (See Sec. 6.1, <u>LIR 402-10-01</u> ,	HASPs/SSHASPs (See Sec. 6.1, <u>LIR</u>
Hazards Information	LIR 402-10-01, "Hazard Analysis and	"Hazard Analysis and Control for Facility Work")	402-10-03, "ES&H Management of
Needed	Control for Facility Work")		Contractor Performed Facility Construction/ Maintenance, Environmental Restoration/
			Decontamination and Decommission, and
			Related Drilling Operations")
VII. ES&H Plan	Yes (> \$25K or > 14 consecutive	Yes (for work that is > \$25K or > 14 consecutive	HASPs/SSHASPs (See Sec. 6.1, LIR
	calendar days duration <i>or</i> uses	calendar days duration <i>or</i> uses hazardous materials,	402-10-03, "ES&H Management of
	hazardous materials, involves	involves unresolved environmental issues, or	Contractor Performed Facility Construction/ Maintenance, Environmental Restoration/
	unresolved environmental issues, or	involves energized work). ES&H Plan must be	Decontamination and Decommission, and
	involves energized work). See Note	reviewed for JCNNM and BOAs by ESH-5 at time	Related Drilling Operations")
	1. * (See Sec. 6.1, <u>LIR 402-10-03, "ES&H</u>	of contract renewal, as a minimum. (See Note 1*)	
	Management of Contractor Performed	(See Sec. 6.1, LIR 402-10-03, "ES&H Management of	
	Facility Construction/ Maintenance,	Contractor Performed Facility Construction/ Maintenance,	
	Environmental Restoration/ Decontamination and Decommission, and Related Drilling	Environmental Restoration/ Decontamination and Decommission, and Related Drilling Operations")	
	Operations")	Decommission, and related Diffilling Operations)	

Section D: Continued

VIII. AHA	Yes (See Sec. 6.1, LIR 402-10-03, "ES&H Management of Contractor Performed Facility Construction/ Maintenance, Environmental Restoration/ Decontamination and Decommission, and Related Drilling Operations")	Yes	No
IX. FMU Schedule	No. Contractor's schedule. (See Sec. 6.1, LIR 402-10-03, "ES&H Management of Contractor Performed Facility Construction/ Maintenance, Environmental Restoration/ Decontamination and Decommission, and Related Drilling Operations")	Maybe—check with the FMU for site-specific requirements. (See Sec. 6.1, LIR 250-02-02, "Facility-Tenant Agreements")	As negotiated and documented in Facility/Tenant agreement, memo of understanding, work request, or other form. (See Sec. 6.1, LIR 402-10-03, "ES&H Management of Contractor Performed Facility Construction/Maintenance, Environmental Restoration/Decontamination and Decommission, and Related Drilling Operations")

^{*}Note 1: In accordance with the UC/DOE contract, the Laboratory has exercised its prerogative to require JCNNM to provide an ES&H Management Plan that covers all of their work at the Laboratory.

Attachment 2: LANL-Specific ES&H Requirements Guide for Service Contractors

The following list of work activities may necessitate that you follow LANL-specific training, permitting, or other requirements because of the associated hazards. This guidance is provided to prompt you to seek further communication with your BUS contracting/purchasing specialist if any of these activities apply to your project. Although the listed controls or comments may not apply to your work, it would be prudent for you to seek additional information from a BUS procurement specialist before finalizing your bid or proposal.

IF your work includes	THEN the required LANL controls are	Comments	Requirement Source
Excavations/soil disturbance/relocation of soil/trenching/grading/fill operations	Completion of Excavation Permit; must do hand excavation in accordance with <u>LIR 402-880-01</u> requirements, p. 13 – 14.	FMU personnel must assist in preparation of permit. Processing time for permit is 2 - 4 weeks. GPR survey, if needed, may take 1 – 2 weeks.	LIR 402-880-01
Blind penetrations into walls, ceilings, roofs, etc.	Consultation with FMU personnel for site- specific controls.	GPR survey, if needed, may take 1 – 2 weeks.	
Energized electrical work > 50V <i>and</i> > 5mA, or > 10 Joules	Completion of Special Electrical Work Permit.	LANL discourages energized work.	LIR 402-600-01
Generation of solid/liquid waste, including excess materials, rinse water, used materials.	Consultation with local Waste Management Coordinator for institutional and site-specific controls, including identification of generator and identification of manager of waste.	Consultation w/ ESH-19 on non-routine wastes may be warranted.	LIR 404-00-02 (for hazardous wastes)
Generation of air emissions, such as dust, vapors, gases, fumes, or smoke, OR use of regulated (by any regulatory agency) chemicals, radionuclides, combustion equipment, maintenance or modification to building exhaust systems, or D&D activities.	Consultation with ESH-17, (7-3615), or FMU personnel.	Use decision tree in <u>LIR 404-10-01</u> .	LIR 404-10-01
Release of liquids (including clean water) into the environment, including onto the ground, down drain lines, or into natural watercourses.	Consultation, prior to work, with ESH 18, 5-2014, to determine if NMED notification is required.		LIR 404-50-01
Any other effect on the ecology, including clearing brush, cutting trees, entry into archeological areas, change of building or structure outside footprint, increased light or noise, and decommissioning, decontaminating, or demolition.	Have project submitted into ESH-ID system and comply with reviewer comments, or have project or work description reviewed by an authorized NCB reviewer.	Contact ESH-3 or FMU for assistance, if needed, in entering the project into the ESH-ID electronic system. Typical reviewer turn-around is 3 weeks. Can be shortened if needed.	LIR 404-30-02

Attachment 2 (continued)

IF your work includes	THEN the required LANL controls are	Comments	Requirement Source
Use of any spark or flame producing equipment or activities, including welding, cutting, etc., that presents a fire hazard	Completion of Spark/Flame Permit.	FMU personnel must assist in preparation. Average processing time for permit is 1 day or less.	LIR 402-840-01/ AR 8-4
Exterior work which may generate flame, sparks, or high heat during extreme wildland fire danger conditions.	Specific to conditions.	Request restrictions bulletin from Laboratory Fire Marshall, FWO-FIRE.	
Entry into confined spaces, either permit-required or non permit-required.	Development of confined space permit, if required. Attendance at LANL Confined Space Awareness training.	Permitting and arrangements may take 1 - 5 days. Training is 3.5 hours and is offered at least monthly.	LIR 402-810-01
Entry into radiological areas.	 development of Radiation Work Permit, completion of RAD I or II (LANL) training, and use of LANL dosimetry. 	RWPs may take 1 - 5 days to complete. RAD I and II are offered every Wednesday and Thursday. Training is 1.5 days. For test-out options, consult ESH-13 registrar (7-0059) Consult with site RCTs for LANL dosimetry.	LIR 402-701-01
Work on-site for ten or more full or partial days within one elapsed year's time	Attendance at LANL GET training or test-out Have a LANL badge; a BUS specialist can help arrange.	GET training every Tuesday with test- out option on Tuesday. Training is 1 day; up to 3.5 hours is allowed for test- out.	ESH-13 requirement
Activities which may impact on adjacent LANL operations, including use of hazardous or noxious chemicals, noise, vibrations, dust, etc.	Consult with FMU personnel to determine impact on operations and on service contractor's work. May need to shut down Lab operations, clear work area, or work special schedule.		
Maintenance activities, hazards, or controls which include one or more of the following: - fall protection, - respiratory protection - excavation in Type B or C soil - scaffold erection - asbestos or lead abatement - high consequence lifts or hoists - task-related radiation source(s) - task-related activities w/ probable exposure above PEL or TLV	Development and approval of an ES&H plan to assure that the service contractor's ES&H program is sufficiently comprehensive and rigorous to manage the scope of work anticipated.	ES&H plan must be submitted to ESH-5 for approval before work can begin. Preparation assistance available from a BUS specialist or ESH-5.	LIR 402-10-03

Attachment 2 (continued)

IF your work includes	THEN the required LANL controls are	Comments	Requirement Source
A construction project cost of \$25,000 (or greater) OR a schedule equal to or exceeding 14 calendar days.	Development and approval of an ES&H plan to assure that the construction contractor's ES&H program is sufficiently comprehensive and rigorous to manage the scope of work anticipated.	ES&H plan must be submitted to ESH-5 for approval before work can begin. Preparation assistance available from a BUS specialist or ESH-5.	LIR 402-10-03
Activity Hazard Analysis (AHA)	Development and review of AHA(s) to assure that hazards and controls have been identified.	AHA(s) must be submitted to ESH-5 for approval before work can begin. (ESH-5 will forward to FMU qualified personnel for comments.) Preparation assistance available from a BUS specialist or ESH-5.	LIR 402-10-03
Lifting or hoisting operations categorized as a high consequence (critical) lift.	Development and approval of a lifting plan (procedure) to identify certified equipment, qualified personnel, and safe practices to be used.	Lifting plan (procedure) must be submitted to ESH-5 for approval before lift can be accomplished. Assistance in preparing the plan (procedure) is available from ESH-5.	AR 13-2
Use of lock-out/tag-out to isolate energy.	Attendance at LANL LO/TO training. Mandatory use of LANL LO/TO tag and process (except for greenfield construction).	Training is 3 hours and is offered twice monthly.	LIR 402-860-01
An exterior project site for which >5 acres of soil will be disturbed	ESH-18 evaluation for NPDES Stormwater plan and permit.	Consultation with ESH-18, 5-4752. Development of SWPP plan will take 2 - 4 weeks; permit in less than 5 days.	LIR 404-50-01

This document will serve to transmit information to you which you may need to perform your services. It is not intended as a comprehensive listing of hazards or controls. For the listed hazards, you may need to perform your company controls in addition to the LANL controls listed.

Where LANL training is one of the controls required, questions about the equivalency of training you utilize to the LANL training may be addressed to Operational Safety, ESH-5, 7-4644. In some cases, the use of escorts may be substituted for either LANL or site-specific controls, as determined by Operational Safety (ESH-5) or the FMU ES&H team, respectively.